



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,535	12/14/2006	Nicolas Ibrahim		5993

27367 7590 10/06/2008  
WESTMAN CHAMPLIN & KELLY, P.A.  
SUITE 1400  
900 SECOND AVENUE SOUTH  
MINNEAPOLIS, MN 55402-3244

EXAMINER
----------

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
----------	--------------

2617

MAIL DATE	DELIVERY MODE
-----------	---------------

10/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,535	<b>Applicant(s)</b> IBRAHIM, NICOLAS	
	<b>Examiner</b> JOY K. CONTEE	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/14/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Baum, US 5,867,478.

Regarding claim 19, Baum discloses a method for reception of radio data transmitted between at least two emitters and one receiver wherein the method comprises: a first step of receiving data transmitted by at least one multicarrier data transmission signal, the said multicarrier signal being formed from a sequence in time of symbols comprising firstly information data elements, and secondly reference elements called pilots, distributed within the said information data elements according to a predetermined pattern, and for which the value during emission is known to the said receiver, at least two of the said emitters using distinct pilot patterns such that at any given moment and at any given frequency, the said receiver can only receive one pilot from the said emitters; a second step of identifying the emitter, which emitted the said data, using a control information transmission signal, which allows notably the said receiver, upon

Art Unit: 2617

data reception, to identify the said emitter that emitted them; and a third step of determining the said pilot pattern used by the said identified emitter(col. 7,line 17 to col. 8,line 57 and col.29,lines 13-57).

Regarding claim 20, Baum discloses method for reception of data according to claim 19, wherein, when the said pilot pattern was generated using a generation function for which one parameter is an identifier of the said associated emitter, the said step of determining implements the said generation function as a function of the said identified emitter(col. 7,line 17 to col. 8,line 57 and col.29,lines 13-57).

Regarding claim 21, Baum discloses method for reception of data according to claim 19 and further comprising a step for extracting the said pilots from the said multicarrier data transmission signal, and a step for estimating the transfer function of a transmission channel associated with the said multicarrier signal(col. 7,line 17 to col. 8,line 57 and col.29,lines 13-57).

Regarding claim 22. , Baum discloses method for reception of data according to claim 19, wherein the said multicarrier signal is of the OFDM type(col. 7,line 17 to col. 8,line 57 and col.29,lines 13-57).

Regarding claim 23. , Baum discloses method for reception of data according to claim 19, wherein each of the said emitters uses a specific pilot pattern(col. 7,line 17 to col.

8,line 57 and col.29,lines 13-57).

Regarding claim 24. , Baum discloses method for reception of data according to claim 19, wherein said method is implemented in a cellular radio communication network, the said emitters are base stations of the said network, and the said receiver is a mobile terminal(col. 7,line 17 to col. 8,line 57 and col.29,lines 13-57).

Regarding claim 25, Baum discloses cellular radio communication system comprising:at least two emitters and one receiver, implementing at least one multicarrier data transmission signal, the said multicarrier signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots distributed within the said information data elements according to a predetermined pattern, and for which the value on emission is known to the said receiver;wherein at least two of the said emitters use distinct pilot patterns, such that only one pilot can be received by the said receiver from the said emitters, at a given time and at a given frequency; andwherein said receiver comprises:first means of receiving data transmitted by the said multicarrier data transmission signal;second means of identifying the emitter that emitted the said data, using a control information transmission signal, which allows notably the said receiver to identify the said emitter that emitted the data when it receives them; andthird means of determining the said pilot pattern used by the said identified emitter(col. 7,line 17 to col. 8,line 57 and col.29,lines 13-57).

Regarding claim 26, Baum discloses mobile in a cellular radio communication system, comprising: means of receiving radio data transmitted by at least two emitters, in the form of at least one multicarrier data transmission signal, the said multicarrier signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots distributed within the said information data elements according to a predetermined pattern, and for which the value on emission is known to the said mobile, at least two of the said emitters using distinct pilot patterns, such that only one pilot can be received by the said receiver from the said emitters, at a given time and at a given frequency; means of receiving data transmitted by the said multicarrier data transmission signal; means of identifying the emitter that emitted the said data, using a control information transmission signal, which allows notably the said receiver to identify the said emitter that emitted the data when it receives them; and means of determining the said pilot pattern used by the said identified emitter (col. 7, line 17 to col. 8, line 57 and col. 29, lines 13-57).

Regarding claim 27, Baum discloses cellular radio communication mobile comprising a receiver adapted to receive radio data transmitted by at least two emitters, in the form of at least one multicarrier data transmission signal, the said multicarrier signal being formed from a time sequence of symbols composed firstly of information data elements and secondly of reference elements called pilots distributed within the said information data elements according to a predetermined pattern, and for which the value on

Art Unit: 2617

emission is known to the said mobile, at least two of the said emitters using distinct pilot patterns, such that only one pilot can be received by the said receiver from the said emitters, at a given time and at a given frequency, wherein the receiver is adapted to identify the emitter that emitted the said data, using a control information transmission signal, which allows the said receiver to identify the said emitter that emitted the data when it receives them, and to determine the said pilot pattern used by the said identified emitter. (col. 7, line 17 to col. 8, line 57 and col. 29, lines 13-57).

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOY K. CONTEE whose telephone number is (571)272-7906. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571.272.7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC

/Joy K Contee/  
Patent Examiner (PSA), Art Unit 2617